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| APPLICATION NO.          | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------|-------------|----------------------|---------------------|------------------|
| 10/810,842               | 03/29/2004  | Darren Rogers        | 07620004C1          | 9130             |
| 48642                    | 7590        | 12/13/2006           |                     | EXAMINER         |
| PHILIP D. LANE           |             |                      |                     | KRISHNAN, MALINI |
| P.O. BOX 79318           |             |                      |                     |                  |
| CHARLOTTE, NC 28271-7063 |             |                      | ART UNIT            | PAPER NUMBER     |
|                          |             |                      | 1714                |                  |

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/810,842             | ROGERS ET AL.       |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Malini Krishnan        | 1714                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 March 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 14 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 14 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 March 2004 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____.                                     |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/29/04</u> .   | 6) <input type="checkbox"/> Other: _____.                         |

## DETAILED ACTION

### ***Specification***

1. The disclosure is objected to because of the following informalities: The term "minor" is misspelled on page 9, line 16.

Appropriate correction is required.

### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

**There are three (3) obvious double patenting rejections set forth below over the following (1) U.S. Patent 6,899,970; (2) U.S. Patent 6,814,765; (3) U.S. Patent 6,861,151.**

***Double Patenting (1)***

3. Claim 14 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 11 of U.S. Patent No. 6,899,970. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons set forth below.

Claim 1 of U.S. Patent 6,899,970 discloses a fuel cell, which comprises a coal-based carbon foam produced from particulate coal. Claim 11 discloses a process of preparing the coal-based carbon foam, which comprises comminuting coal to small particle size, placing ground coal into a mold, heating mold under a non-oxidizing atmosphere at a temperature of between about 300 and about 700°C, and controllably cooling the product. The claims are silent with respect to specific size and type of comminuted coal, and a partitioned, ceramic mold.

Applicants attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438,164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to column 5, lines 17-21 that discloses the comminuted coal as bituminous coal having particle size of the coal to be less than 1 mm, and column 7, lines 40-44 that

disclose the percentage of volatiles contained in the comminuted coal, which encompasses high and low volatile bituminous coals. Column 5, lines 50-60 describe the mold as a ceramic mold of any predetermined configuration. Thus, the instant claim 14 is an obvious variation of U.S. Patent 6,899,970.

4. Claim 14 is directed to an invention not patentably distinct from claims 1 and 11 of commonly assigned U.S. Patent 6,899,970. Specifically, although the conflicting claims are not identical, they are not patentably distinct for the reasons set forth in paragraph 3 above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 6,861,151, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

*Double Patenting (2)*

5. Claim 14 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 6 of U.S. Patent No. 6814765. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons set forth below.

Claims 1 and 6 of U.S. Patent No. 6,814,765 discloses a carbon foam and method of making same which comprises heating volatile bituminous coal particles in a mold from about 300°C to 700°C.

The claims of the conflicting U.S. patent are silent with respect to size of the coal particles, a cooling step, and the mold being ceramic and containing partitions, as required in instant claim 14.

Applicants attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to column 1, line 66 – col. 2, line 1 of U.S. Patent No. 6814765 that define the term carbon foam as a coal-based cellular product, and column 3, lines 15-20 that disclose the particle size to be a fine powder below about –60 to –80 mesh, which corresponds to the instant claimed “below about 1 mm”. Column 4, lines 35-40 disclose selecting the starting bituminous coal by examining coal characterized as low and high volatile coal. Column 4, lines 55-65 disclose controllably cooling the product as a step in the formation of a carbon foam, and column 5, lines 20-30 disclose the mold having any predetermined configuration. It is the examiner’s position that a mold containing partitions, such as in the instant claimed invention, can be defined as one type of configuration. Furthermore, Example 1 describes a ceramic mold. Therefore, the instant claim 14 is an obvious variation of the cited claims 1 and 6 of U.S. Patent No. 6,814,765.

6. Claim 14 is directed to an invention not patentably distinct from claims 1 and 6 of commonly assigned U.S. Patent No. 6,814,765. Specifically, although the conflicting claims are not identical, they are not patentably distinct for the reasons set forth in paragraph 5 above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 6,814,765, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting

inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,814,765.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer

in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

For an explanation of the rejection, see paragraph 5 above.

*Double Patenting (3)*

8. Claim 14 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,861,151. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons set forth below.

Claim 1 of U.S. Patent 6,861,151 discloses a coal-based cellular product, which includes a carbon foam having a first and second density. The claim is silent with respect to the process by which the product is formed. However, as the instant application is a product-by-process claim, U.S. 6,861,151 sufficiently discloses the product as claimed in the instant claim 14. Attention is drawn to MPEP 2113 where it is disclosed that "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production." *In re Thorpe*, 777 F.2d 695, 227 USPQ 964, 996 (Fed. Cir. 1985).

Although it is not required to meet the process limitations as stated above, the examiner's position is reinforced by the specification of U.S. 6,861,151. In particular, applicant's attention is drawn to MPEP 804 where it is disclosed that "the specification

can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438,164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to column 3, lines 13-27, which discloses the process by which the claimed product is formed. The process includes heating coal particulate to a size of less than 1 mm in a mold at a temperature of between about 300 and about 700°C in a non-oxidizing atmosphere, and subsequently controllably cooling the product. Furthermore, Example 3 in column 8 describes the cellular product made by grinding high and low volatile bituminous coal, placing the coal in a ceramic mold with partitions, vibrating the mold to achieve packing density, and heating the mold in a non-oxidizing atmosphere at a temperature of 475°C after removing the partition. Thus, the instant claim 14 is an obvious variation of U.S. Patent 6,861,151.

9. Claim 14 is directed to an invention not patentably distinct from claim 1 of commonly assigned U.S. Patent 6,861,151. Specifically, although the conflicting claims are not identical, they are not patentably distinct for the reasons set forth in paragraph 8 above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP

Chapter 2300). Commonly assigned 6,861,151, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malini Krishnan whose telephone number is 571-272-6519. The examiner can normally be reached on Monday through Friday, 8:00 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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